

**STATE OF CALIFORNIA**

**Energy Resources Conservation  
And Development Commission**

**2013 Building Energy Efficiency Standards,  
California Code of Regulations, Title 24,  
Parts 1 and 6**

**Docket No. 12-BSTD-01  
Resolution No. 14-1124**

**APPROVAL BY THE EXECUTIVE DIRECTOR OF THE PUBLIC DOMAIN  
NONRESIDENTIAL COMPLIANCE SOFTWARE CBECC-COM VERSION 3A  
FOR COMPLYING WITH THE 2013 BUILDING ENERGY EFFICIENCY STANDARDS**

The Executive Director hereby approves CBECC-Com Version 3a as the public domain alternative calculation method for demonstrating performance compliance with the nonresidential provisions of the 2013 Building Energy Efficiency Standards, California Code of Regulations, Title 24, Part 6, and associated administrative regulations in Part 1, Chapter 10 (Standards).

The Warren-Alquist State Energy Resources Conservation and Development Act, Public Resources Code sections 25000 et seq., 25402.1, subd. (b), requires the Energy Commission to, among other things, establish a process for certifying calculation methods for demonstrating compliance with its building energy efficiency standards.

CBECC-Com Version 3a incorporates additional functionality and corrections to the revised compliance manager that was previously approved by the Energy Commission on August 27, 2014, as part of the Application Programming Interface (API) in the 2013 Public Domain California Building Energy Code Compliance - Nonresidential (CBECC-Com) Software, Version 3.

CBECC-Com Version 3a adds the following functional changes:

- Allows quick analysis modeling option to provide faster preliminary analyses (not allowed for final compliance analysis) and budget estimates for evaluating alternate design options at early stages of building design;
- Allows access to reference objects through new buttons in User Interface (UI),
- Allows additional HVAC system object descriptions in UI tree view,
- Reports unmet load hours for both proposed and baseline models,
- Updates to error checking for required heating and cooling coil types in Zone Systems,
- Updates the defaults of fenestration status for Additions/Alterations/Partial Compliance, and
- Includes documentation of the new feature (QuickAnalysis options) in User Manual.

Corrections made by Version 3a include:

- Issue with solar property assignment when the building includes multiple roof constructions,
- Fuel Type rule error in water heaters to show proper fuel type,
- Error associated with non-assigned parameters causing Energyplus fatal errors including, windows and skylights without construction assignment, inadequate geometric input when using Simplified Geometry options, baseline central plant equipment with zero capacity, spaces with Z coordinates < 0 and daylighting controls, and issues with creating baseline systems for buildings that have only process spaces,
- Issues within OpenStudio outside air control defaults and associated unmet load hours for some models with Laboratory spaces,
- Table lookup errors when certain combination of surfaces not assigned with construction types, and
- Calculation of parallel fan box fan capacity to be based on Induction ratio in annual simulations.

In approving CBECC-Com Version 3 on August 27, the Energy Commission directed the Executive Director to take all actions reasonably necessary to ensure that CBECC-Com is maintained and revised to accurately estimate the energy use of nonresidential buildings and demonstrate compliance with the 2013 Building Energy Efficiency Standards, including correcting functional errors.

In addition to increasing functionality and solving concerns from the building industry, addressing these issues does not significantly affect compliance with the 2013 Building Energy Efficiency Standards.<sup>1</sup> Thus, this update is not required to be approved by the Energy Commission<sup>2</sup>.

Information for obtaining CBECC-Com Version 3a will be posted on the Energy Commission's 2013 Standards website for approved computer compliance programs:

[www.energy.ca.gov/title24/2013standards/2013\\_computer\\_prog\\_list.html](http://www.energy.ca.gov/title24/2013standards/2013_computer_prog_list.html).



Robert P. Oglesby  
Executive Director

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<sup>1</sup> Cal. Code Regs., Title 24, Pt. 1, Ch. 10, and Pt. 6 (also known as the California Energy Code).

<sup>2</sup> See Nonresidential Alternative Calculation Method Approval Manual, May 2012, Pub. No. CEC-400-2012-006-CMF-REV, § 1.2.2, p. 1 - 4, available at: <http://www.energy.ca.gov/2012publications/CEC-400-2012-006/CEC-400-2012-006-CMF-REV.pdf>.